



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/696,155

10/29/2003

Shinichi Kimura

JP920020172US1

7638

48583 7590 01/25/2007
BRACEWELL & GIULIANI LLP
PO BOX 61389
HOUSTON, TX 77208-1389

EXAMINER

BLOUIN, MARK S

ART UNIT

PAPER NUMBER

2627

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/25/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/696,155	KIMURA ET AL.	
	Examiner	Art Unit	
	Mark Blouin	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/12/04 & 3/4/05</u> . | 6) <input type="checkbox"/> Other: ____. |

Detailed Action

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4,6-11,13-16,18, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Bicknese et al (USPN 5,552,946).
3. Regarding Claim 1, Bicknese et al shows (Figs. 1-5) a disk drive (10), comprising: a functional unit including a disk serving as an information storage medium (60); a case assembly (18) holding the functional unit therein; and wherein the case assembly is provided with a thick frame bumper (16) serving as a shock- absorbing member, and a surface of the frame bumper protrudes from side surfaces of the disk drive beyond other members.
4. Regarding Claim 2, Bicknese et al shows (Figs. 1-5) wherein the case assembly includes a top cover (surface pointed to in figure 1 by numeral 10) covering an upper surface of the disk drive, and the surface of the frame bumper protrudes (the disk drive slides between the bumper 16) beyond a surface of the top cover on the upper surface of the disk drive.
5. Regarding Claim 3, Bicknese et al shows (Figs. 1-5) wherein the frame bumper of the case assembly has a guide function of detachably mounting the disk drive on an object (figure 1 depicts disk drive is detachable from protective bumper/rail system).

Art Unit: 2627

6. Regarding Claim 4, Bicknese et al shows (Figs. 1-5) further comprising a connector inserted in a slot formed in the object when the disk drive is mounted on the object; and wherein the connector serves as part of the guide function.

7. Regarding Claim 6, Bicknese et al shows (Figs. 1-5) wherein the frame bumper is formed from an elastomer.

8. Regarding Claim 7, Bicknese et al shows (Figs. 1-5) a storage medium having an assembly structure capable of being detachably loaded into an object (assembly 12), comprising: a connector (28,30) for insertion in a slot (20,22) formed in the object; an elastic member (16) forming an external shape not departing from a form factor that is required in mounting the storage medium to the object; and wherein positions of two-dimensional side surfaces of an external shape is dependent on the connector and the elastic member (Figure 3 depicts how the shapes are formed together).

9. Regarding Claim 8, Bicknese et al shows (Figs. 1-5) wherein the connector (20,22) is provided with an integral guide structure (rail 14) that is mounted on the object (12).

10. Regarding Claim 9, Bicknese et al shows (Figs. 1-5) wherein the elastic member (16) is provided with a guide structure (14) that is guided by and mounted on the object.

11. Regarding Claim 10, Bicknese et al shows (Figs. 1-5) wherein the elastic member (16) has parts protruding from all of the two-dimensional side surfaces beyond other members (Figure 3 shows bumper (16) outside of the other members).

12. Regarding Claim 11, Bicknese et al shows (Figs. 1-5) wherein the elastic member (16) is disposed in a middle part of the assembly structure (12).

13. Regarding Claim 13, Bicknese et al shows (Figs. 1-5) a portable precision device including an assembly structure and capable of being detachably mounted on an object, the portable precision device comprising: a functional unit (10); a base plate (12) for holding the functional unit, a shock-absorbing member (16) formed separate from the base plate and disposed in a middle part of the assembly structure (12); and wherein lateral shocks acting on the portable precision device are absorbed by the shock-absorbing member.

14. Regarding Claim 14, Bicknese et al shows (Figs. 1-5) the base plate is formed by press work (stamping –Col 4, line 2).

15. Regarding Claim 15, Bicknese et al shows (Figs. 1-5) wherein the shock-absorbing member is formed of resins by two-color molding. As the claims are directed to a shock absorbing member, per se, the method limitation(s) can only be accorded weight to the extent that it/they affect(s) the structure of the completed portable precision device. Note that "[d]etermination of patentability in 'product-by-process' claims is based on product itself, even though such claims are limited and defined by process [i.e., "two-color molding"], and thus product in such claim is unpatentable if it is the same as, or obvious form, product of prior art, even if prior product was made by a different process", *In re Thorpe, et al.*, 227 USPQ 964 (CAFC 1985). Furthermore, note that a "[p]roduct-by-process claim, although reciting subject matter of claim in terms of how it is made [i.e., "two-color molding"], is still product claim; it is patentability of product claimed and not recited process steps that must be established, in spite of

Art Unit: 2627

fact that claim may recite only process limitations", *In re Hirao and Sato*, 190 USPQ 685 (CCPA 1976).

16. Regarding Claim 16, Bicknese et al shows (Figs. 1-5) the shock-absorbing member (16) has a protruding part protruding in a direction of a side surface of the portable precision device (it protrudes from rail 14 in Figure 3), and a guide rail (14) is formed to guide the portable precision device (10) in mounting and removing the portable precision device on and from the object (12).

17. Regarding Claim 18, Bicknese et al shows (Figs. 1-5) further comprising a top cover (surface pointed to in figure 1 by numeral 10) for covering the functional unit (10) after mounting the functional unit on the base plate (12); and wherein the shock-absorbing member (16) has a part protruding upward (50) from an upper surface of the top cover covering the functional unit.

18. Regarding Claim 19, Bicknese et al shows (Fig. 5) wherein the functional unit (10) includes a magnetic disk (60) supported for rotation, and an actuator assembly for reading data from the magnetic disk and writing data to the magnetic disk.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2627

20. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bicknese et al (USPN 5,552,946) in view of Diel (USPN 5,546,250).

21. Regarding Claims 5 and 12, Bicknese et al shows (Figs. 1-5) shows all the features described, *supra*, but does not show a nut inserted through the elastic member in a direction of a thickness of the assembly structure, a screw for fastening the nut; and wherein a form factor in the direction of the thickness is determined by fastening the nut by the screw.

Diel shows (Figs. 4-6) a nut (38) inserted through the elastic member (52) in a direction of a thickness of the assembly structure, a screw (40) for fastening the nut; and wherein a form factor in the direction of the thickness is determined by fastening the nut by the screw.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to fasten the shock absorber of Bicknese et al with the nut/screw as taught by Diel. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to fasten the shock absorber of Bicknese et al with the nut/screw as taught by Diel in order to secure the shock absorber to the housing of the disk drive.

22. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bicknese et al (USPN 5,552,946) in view of Bennett et al (USPN 6,735,043).

23. Regarding Claim 17, Bicknese et al shows all the features described, *supra*, but does not show a card assembly provided with a connector for insertion in a slot formed in the object; and wherein the connector serves as part of a guide rail for guiding the portable precision device in

mounting the portable precision device on the object. However, Bicknese et al teaches in column 4, lines 14-18 a printed circuit in the DASD.

Bernett et al shows (Fig. 2) a card assembly (222) provided with a connector (218) for insertion in a slot (202,204) formed in the object; and wherein the connector serves as part of a guide rail for guiding the portable precision device in mounting the portable precision device on the object.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to connect the disk drive of Bicknese et al with the card connector as taught by Burnett et al. The rationale is as follows: One of ordinary skill in the art at the time the invention was made would have been motivated to connect the disk drive of Bicknese et al with the card connector as taught by Burnett et al in order to power the disk drive assembly and send/receive data input.

Conclusion

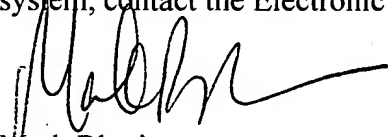
24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Blouin whose telephone number is 571-272-7583. The examiner can normally be reached on M-F from 6:00 to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ms. Hoa Nguyen, can be reached on 571-272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications

Art Unit: 2627

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Mark Blouin
Patent Examiner
Art Unit 2627
January 10, 2007



HOA T. NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600
1/18/07